



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

11/7

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,006	04/08/2004	Geoffrey Staines	17443	9318

23389 7590 04/10/2007  
SCULLY SCOTT MURPHY & PRESSER, PC  
400 GARDEN CITY PLAZA  
SUITE 300  
GARDEN CITY, NY 11530

EXAMINER
----------

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

2836

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/10/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.







## DETAILED ACTION

### *Response to Arguments*

In view of Applicant's remarks Applicant's proposed drawing amendment are not deemed necessary. Accordingly the objection is withdrawn.

Applicant has filed replacement drawings (03/21/2007) in response to a Notice of Non-Compliance (37 CFR 1.121); additionally these drawings are entered, and obviate the previous objected matter.

Applicant's amendments to claims to at least claim 1 render moot the previously identified claim objections.

Applicant's arguments filed 03/21/2007 have been fully considered but they are not persuasive.

Applicant alleges on last paragraph of the page labeled -6- "...claim 1, which more closely defines the common disc-shaped pole bus bar (15), the common disc-shaped ground bus bar (14) and the common disc-shaped charging bus bar (18)." The Office notes the "disc-shape" of the bus bars mentioned above is not present in claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Additionally O'Loughlin et al. (U.S. Pat. No. 5,567,995) teaches a known pulse generator, and while one should note several differences in O'Loughlin et al. and Applicant's arrangements, O'Loughlin et al. teaches spiral (disc-



Art Unit: 2836

shape) configuration of a pulse forming network may be used to reduce at least weight, size, and costs of a conventionally arranged system.

Applicant secondly contends a lacking of a series inductor previously contained within claim 2 and charge storage means previously in claim 3 amended into claim 1. It is submitted Robinson as identified in the previous action teaches all the limitations of claims 2 and 3 as modified by Croson. Specifically, see page 2 of Applicant's specification where Applicant recites "That inductor which can simply be in the form of a coaxial cable" Robinson clearly identifies the use of a coaxial cable (item 7 and/or 8) and charge storage means see pulse forming line (item 12). It is therefore submitted the rejection is proper and is maintained.

### ***Claim Objections***

Claims 5-7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form including the necessary fee.

In order to further prosecute the merits of Applicant's amendment claim 5 will treated to depend from claim 4.

### ***Claim Rejections - 35 USC § 103***



The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al. (U.S. Pat. No. 5,412,254) in view of Croson (U.S. Pat. No. 3,748,528)

With respect to claim 1 Robinson teaches high voltage pulse generator (Fig.1) with a charge storage means (item 12) and an untriggered discharge spark gap (item 27) connected in series therewith, characterized in that a plurality (seen in Fig. 1) of such series circuits of said charge storage means and said spark gap are connected in parallel with each other, with the connection of an antenna (not shown see col. 3 line 25) to a common pole bus bar (common connection to power supply lines seen in figure 1) of the charge storage means. Robinson illustrates only cabling and dielectric medium in connection to the charge storage means and the spark gap and while Robinson does not point out a specific resistor element for the charging of the pulse both the dielectric and the conductive line possess resistance to enable the charging of the pulse further the use of a separate resistor would have been obvious to one of ordinary skill at the time of the invention to select a resistance of the line or dielectric or include a resistor in order to charge the system to a particular level before discharge. Robinson teaches a series inductor (inductance of transmission line item 30 alternatively



inductance of attached antenna also see coaxial cable 7 and 8 coupled to the spark gap) is connected in the common discharge circuit (i.e. antenna not shown) of all charge storage means (12) between the end of the charge storage means (12) which is remote from the spark gap (27) and the end of the spark gap (27), which is remote from the charge storage means (12). Robinson teaches the charge storage means (12) are connected in single-pole mode to a common pole bus bar (power supply to supply charging potential), the spark gaps (27) are connected in single-pole mode to a common ground bus bar (output bus via transmission line 30 through grounded container col. 3 lines 25-30 where power may be combined col. 3. lines 53-54) and the charging resistance is connected in single-pole mode to a common charging bus bar (transformer arrangement of figure 1). Robinson is silent to disclose the antenna (not shown see col. 3 line 25) is used in the generation of microwaves. Croson teaches the connection of high power microwave generator (Fig. 1) in connection with charging circuitry (item 47) to a high voltage source (item 46) to supply power to a microwave generation system. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the high voltage source disclosed in Robinson to output to a microwave antenna in order to generate a high voltage pulse to produce power the microwave generation system.

With respect to claim 4 Robinson as modified by Croson teaches the charging resistances (identified above) are jointly connectable in single-pole mode to a high voltage generator (item 1).



With respect to claim 5 Robinson as modified by Croson schematically depict the bus bars and connection and describe connections such as a cylindrical shaped coaxial cable, the construction of a disc shape bus would have been obvious to one of ordinary skill in the art at time of the invention to make a connection or bus in any suitable shape in order to meet spatial or conductive system specifications.

With respect to claim 6 Croson teaches the antenna is connected to the bus bar by way of a ducting means (shown in Fig .1 of Croson).

With respect to claim 7 Robinson as modified by Croson teaches charging resistors which are arranged colinearly with the charge storage means and the spark gaps thereof and which are connected to the charging bus bar are connected through holes (item 24) in the bus to the connecting points of the charge storage means associated therewith to the spark gaps.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



Art Unit: 2836


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW



**BRIAN SIRCUS**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2000